# UNCLASSIFIED

AD 400'679

Reproduced by the

ARMED SERVICES TECHNICAL INFORMATION AGENCY
ARLINGTON HALL STATION
ARLINGTON 12, VIRGINIA



UNCLASSIFIED

NOTICE: When government or other drawings, specifications or other data are used for any purpose other than in connection with a definitely related government procurement operation, the U. S. Government thereby incurs no responsibility, nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

## INDEX

#### **ANNUAL REPORTS**

1950-1961

U.S. ARMY CONTRACT DA - 49 - 007 - MD - 447

T.G. Blocker, Jr., M.D. and Staff University of Texas Medical Branch Galveston, Texas



AS AD NO.

#### INDEX

## **ANNUAL REPORTS**

1950-1961

U.S. ARMY CONTRACT DA - 49 - 007 - MD - 447

T.G. Blocker, Jr., M.D. and Staff University of Texas Medical Branch Galveston, Texas

## ANNUAL REPORTS INDEX

	PAGE
Burn Studies	
Anemia	- 5
Animal Experimentation	6
Antibiotics (See also Clinical Studies)	8
Bacteriology and Immunology	20
Biochemical and Pathophysiological Studies	9
Bone and Joint Studies	10
Cleansing (See Clinical Studies)	
Clinical Studies (See also Statistics)	11
Convalescent Burn Serum (See Bacteriology and Immunology)	
Deaths (See Statistics)	
Debriding Agents (See also Clinical Studies)	14
Drug Studies (See also Clinical Studies)	15
Hypothermia	16
Immunology (See Bacteriology and Immunology)	
Local Therapy (See Clinical Studies)	
Mass Casualty Treatment (See Disaster and Mass Casualty Care)	
Metabolic and Nutrition Studies	17
Psychological Studies (See Clinical Studies)	
Skin Grafts (See Clinical Studies)	
Statistics	18
Supportive Therapy (See Clinical Studies)	
Therapy (See Clinical Studies)	
Time and Motion Analysis of Operating Room Procedures	19
Bacteriology and Immunology (See also Studies in Burns)	20
Disaster and Mass Casualty Care and Planning (See also Clinical Studies)	22
Homotransplantation Studies	23
Lymphatic Studies	25
Radioisotope and Nuclear Cytology	26
Reports on Medical Trips and Meetings	27
Tissue Culture Studies	28

	PAGE
Trauma Studies (See also Disaster and Mass Casualty Care and Planning)	29
Wound Healing Studies	30

\$

Note that 1950-1953 refers to Volume 7, a Summary of Work on U.S. Army

Contract DA-49-007-MD-447 from May 1950 through April, 1953, For more

detailed accounts of studies see separate volumes 1-6.

Note also that 1954 and 1958 reports are two sections.

## ANEMIA IN BURNS

YEAR		PAGE
1953	Studies on Burn Anemia	25
1954 II	Studies on Burn Anemia	10
	1. Erythrophagocytosis	11
	2. Trypsin-Anti-Trypsin and Trypsin Titers of Serum	13
	3. Erythrophagocytosis and Trypsin-Anti-Trypsin Titers in Experimental Animals	14
1955	Studies on Burn Anemia	10
	<ol> <li>Radiochromium-51 Method for the Study of Erythrocyte Survival in Burn Patients with Late Anemia</li> </ol>	11
	<ol> <li>The Fate of Autologous Hemoglobin and Plasma Tagged with Chromium-51 in Rabbits</li> </ol>	30
	3. Erythrophagocytosis	35
1958	Studies in Burn Anemia: Progress Report	3 <b>9</b> 5

## ANIMAL EXPERIMENTATION

# I. RATS

YEAR		PAGE
1950-53	Animal Experimentation with Regard to the Protective Influence of Antibiotics in Burns	29.
1954 II	Experimental Burns in Rats	20
<u>1955</u>	Experimental Hypothermia in Burns	101
<u>1956</u>	The Effect of Pre-Treatment with Zymosen on Survival Rate of Experimentally Burned Rats	141
1960	Establishment of a Standardized Control Burn and Evaluation of the Effect of Total Excision of Third Degree Burns in Rats	242
1961	Standardization of Experimental Burns in the Laboratory Rat	45
<u>1961</u>	Observation on the Validity of Surface Area Calculations of Rats in the Laboratory	65
<u>1961</u>	Experimental Study with Reference to Convalescent Burn Serum	138
<u>1961</u>	Evaluation of Certain Laboratory Anesthesia and Environmental Factors in Experimental Work with the Burned Rat	202
	II. RABBITS	
YEAR		PAGE
1955	The Fate of Autologous Hemoglobin and Plasma Tagged with Chromium-51 in Rabbits	30
1960	Experimental Evaluation of Salcolan for Local Burn Therapy	148

YEAR		PAGE
1960	Experimental Study of Effects of Heparin on Deep Thermal Burns	236
	III. DOGS	
YEAR		PAGE
1956	Experimental Hypothermia in Burns	149
1959	Studies in the Physiological Response of Fluid Therapy and to Hypothermia in Dogs with Extensive Standardized Burns	221
1961	Experimental Evaluation of Oliguria and Edema in	210

# ANTIBIOTICS

YEAR		PAGE
<u>1950-53</u>	Animal Experimentation with Regard to the Protective Influence of Antibiotics in Burns	29
1950-53	Clinical Studies	32
1950-53	Use of Local Antibiotic in Burns	90
<u>1953</u>	Antibiotic and Staphylococcal Resistance	8
<u>1953</u>	The Disc Method as a Method of Choice for Determining Antibiotic Sensitivity of an Organism	15
<u>1954 I&amp;II</u>	Studies on Bacterial Flora and Susceptibility to Antibiotics	1
<u>1956</u>	The Use of Antibiotics in the Pest-Operative Period as a Prophylactic Measure	183
1958	Massive Penicillin Therapy in Burns	353
1960	Combined Antibiotic-Antitoxin Therapy of Exper- imental Staphylococcal Infection in Mice	256

## BIOCHEMICAL AND PATHOPHYSIOLOGICAL STUDIES

YEAR		PAGE
1950-53	Blood and Urine Chemistry Studies	80
<u>1954 I</u>	Histochemical Aspects of Burned Human Skin with Special Reference to the Healing Phase	7
1954 I	Electrophoretic Studies	26
1955	Alterations in the Serum Proteolytic Inhibitor Titre in Burns	43
1956	Observations on Sodium and Potassium Excretion in Clinical Burns	196
1956	Histochemical Studies of the Dermis During the Process of Wound Healing Following Thermal Trauma	108
1959	Studies in the Physiological Response to Fluid Therapy and to Hypothermia in Dogs with Extensive Standardized Burns	221
1960	The Problem of Protein Disequilibrium Following	134

# BONE AND JOINT STUDIES

YEAR		PAGE
1958	Bone and Joint Changes	406
1959	Bone and Joint Changes Following Burns (Reprint)	303

#### CLINICAL STUDIES ON BURNS

YEAR		PAGE
1950-53	Clinical Facilities	37
1950-53	Early Supportive Therapy	39
1950-53	Experiences with the Exposure Method of Burn Therapy	42
1950-53	One-Piece Absorbent Burn Dressings	58
<u>1956</u>	Local Burn Therapy After the Acute Phase	6
<u>1956</u>	Methods of Evaluating Bacteria on a Granulating Surface	14
<u>1956</u>	Topical Antibacterial Drug Study	34
<u>1956</u>	Neosporin as a Topical Antimicrobial Agent in Burns, Wounds, and Ulcers	42
1956	Debriding Agents	61
1956	Observations on Sodium and Potassium Excretion in Clinical Burns	196
1957	Evaluation of Semi-Open Method in the Management of Severe Burns After Acute Phase	8
1957	General Aspects of Microbial Growth in the Burn Wound	41
1 <u>957</u>	The Effects of Antibiotics on the Organisms Colonizing Burn Wounds and on the Success of Skin Grafts	52
1 <u>957</u>	A Study of Clinical Criteria for Success of Skin Grafting	69
1 <u>957</u>	Reasons for Failure of Take on Skin Grafting of Burned Areas	73

YEAR		PAGE
1957	The Relationship Between Granulation Tissues Bacteria and Skin Grafts on Burn Patients	85
1957	Debriding Agents	117
1958	Burn Statistics and Summary of Local Therapy	330
1958	High Protein Feeding in the Severely Burned Patient	340
1958	Massive Penicillin Therapy in Burns	353
1958	General Summary of the Technique and Complications of Enzymatic Debridement of Burns	355
<u>1958</u>	A Clinical Evaluation to Determine the Effectiveness of Clostridial Enzyme Lot H-4-35, 0-22 as a Debriding Agent Following Thermal Trauma	369
1958	The Care of Patients with Burns	389
1958	Studies in Burn Anemia	395
1958	Local Therapy of Burns: An Improved Method of Cleansing Burns	399
1958	Bone and Joint Changes Following Burns	406
1958	Solubilized Keratin as a Plasma Expander	436
1959	An Emergency Burn Center	89
1959	The Local Leukocytic Response to Skin Grafting	210
1959	Antibody Studies in Burn Patients	258
1959	Bone and Joint Changes (Reprint)	303
1960	Experiences in the Management of the Burn Wounds	52
1960	Evaluation of a Semiopen Method in the Management of Severe Burns After the Acute Phase	78

YEAR		PAGE
1960	A Practical Approach to Cleansing of the Burned Patient	105
1960	Leukocytic Patterns in Granulating Burns	143
1960	Experimental Evaluation of Salcolan for Local Burn Therapy	148
1960	Physical Therapy Program for Burn Patients	233
1960	Experimental Study of Effects of Heparin on Deep Dermal Burns	236
1961	Studies of Burn Wound Flora	248
<u>1961</u>	Persistent Graft Failure Following Burns: Report of a Case and Analysis of Causes	257
1961	Psychological Studies in Burn Patients	281
1961	Medical Sculpture as an Aid to the Burn Patient	325

# DEBRIDING AGENTS

YEAR		PAGE
1950-53	Enzymatic Debriding Agents	93
1956	Debriding Agents	61
<u>1957</u>	Debriding Agents	1.1.7.
<u>1958</u>	General Summary of the Technique and Complications of Enzymatic Debridement of Burns	355
<u>1958</u>	A Clinical Evaluation to Determine the Effectiveness of Clostridial Enzyme Lot H-4-36, 0-22 as a Debriding Agent Following Thermal Trauma	369
1958	An Improved Method of Cleansing Burns	399
1960	A Practical Approach to Cleansing of the Burned Patient	105

# DRUG STUDIES

YEAR		PAGI
1950-53	Drug Toxicity Studies	12
1950-53	Keloid Studies	18
1950-53	Proteinase	28
1950-53	Keloid Studies	92
1953	Testing the Efficacy of Arquad-S as a Sanitizing Agent	4
1953	ACTH and Cortisone	88
<u>1954 II</u>	Preliminary Report on the Topical Use of Neosporin Ointment	3
1955	Phenyl Ethyl Alcohol as a Topical Antimicrobial Agent	65
1956	Topical Antibacterial Drug Study	34
1956	Neosporin as a Topical Antimicrobial Agent in Burns, Woulds, and Ulcers	42
<u>1956</u>	The Effect of Pre-Treatment with Zymosen on Survival Rate of Experimentally Burned Rats	191
1958	The Clinical Trial of Pasteurized Pooled Plasma	120
1958	Solubilized Keratin as a Plasma Expander	436
1960	Experimental Study of Effects of Heparin on Deep Dermal Burns	236
1960	Experimental Evaluation of Salcolan for Local Burn Therapy	148
1961	Experimental Evaluation of Oliguria and Edema in	210

## **HYPOTHERMIA**

YEAR		PAGE
1955	Experimental Hypothermia in Burns	101
1956	Experimental Hypothermia in Burns	149
1959	Studies in the Physiological Response to Fluid Therapy and to Hypothermia in Dogs with Extensive Standardized Burns	221

# METABOLIC AND NUTRITION STUDIES

YEAR		PAGE
1950-53	Nutrition Studies	60
<u>1953</u>	Nutrition Studies	29
<u>1954 I</u>	Electrophoretic Studies with Case Reports	26
1954 I	Case Reports	29
1954 II	Nutrition Studies in the Severely Burned	32
1955	Nutrition Studies in the Severely Burned (Reprint)	90
1955	The Effects of High Protein Feeding Upon Colonic Motility	91
1955	Electrophoretic Studies	99
1958	High Protein Feeding in the Severely Burned Patient	340

# STATISTICS

YEAR		PAGE
1950-53	Burn Deaths	83
1953	Burn Statistics (April-September, 1953)	1
<u>1954 I</u>	Burn Statistics (January, 1950-January, 1954)	23
1955	Burn Statistics and Summary of Local Therapy	1
1956	Burn Statistics	1
1957	Burn Statistics	1
1958	Burn Statistics and Summary of Local Therapy	330
1959	Burn Statistics (1958-1959)	44
1959	A Statistical Study of 1,000 Burn Patients Admitted to the Plastic Surgery Service of the University of	
	Texas Medical Branch (1950-1959)	54
1960	Burn Statistics	117
1961	Rum Statistics and Analysis (1960-1961)	227

## TIME AND .MOTION ANALYSIS OF OPERATING PROCEDURES

<u>YEAR</u>		PAGE
1958	Motion and Time Analysis of Operating Room Procedures	215
1960	Motion - Time Analysis of Operation Room Procedures. Re-evaluation	304

# BACTERIOLOGY AND IMMUNOLOGY

YEAR		PAG
1950-53	Clinical Studies	32
1950-53	Proteolytic and Anti-Tryptic Activity of Serum.  A Preliminary Study	35
1953	Testing the Efficacy of Arquad-3 as a Sanitizing Agent	4
1953	Antibiotic and Staphylococcal Resistance	8
1953	The Disc Method as a Method of Choice for Determining Antibiotic Sensitivity of an Organism	15
<u>1954 I&amp;II</u>	Study on Bacterial Flora and Susceptibility to Antibiotic	1
<u>1954 II</u>	Preliminary Report on Topical Use of Neosporin Ointment	3
<u>1954 II</u>	Studies on Cross-Contamination	8
	1. Air Sampling of the New John Sealy Hospital	8
	2. Patient to Patient Cross-Contamination	.9.
<u>1955</u>	Alterations in the Serum Proteolytic Inhibitor Titre in Burns	43
1955	Phenyl Ethyl Alcohol as a Topical Antimicrobial Agent	65
1956	Topical Antibacterial Study	34
<u>1957</u>	General Aspects of Microbial Growth in the Burn Wound	41
1958	The Antimicrobial Activity of Serum	1
1958	Staphylococcal Infection and the Phage 81 Problems	91
1958	Antibody Studies in Burn Patients	95

YEAR		PAGE
1959	Antibody Studies in Burn Patients	258
1960	The Role of Auto-Contamination in Post Operative Infection	250
1960	Staphylokinase Levels in Staphylococci from Clinical Sources	
<u>1960</u>	Combine Antibiotic-Antitoxin Therapy of Experimental Staphylococcal Infection in Mice	
1961	Study of Burn Wound Flora	248

# DISASTER AND MASS CASUALTIES

YEAR		PAGE
1955	Mass Disaster Treatment of Burns	112
1957	Fellow-Up Medical Survey of the Texas City Disaster	215
1958	The Clinical Trial of Pasteurized Poeled Plasma	120
1958	Civilian Medical Facilities in Disaster	138
1958	Fellow-Up Medical Survey of the Texas City Disaster	149
1959	An Emergency Burn Center	89

## **HOMOTRANSPLANTATION**

YEAR		PAGE
1950-53	Studies on the Survival of Skin Homografts	23
1950-53	Skin Bank Studies	9
	1. Skin Banks	9
	2. Viability of Skin in Relation to Various Methods of Storage	9
	3. Lyophilized Skin	10
1953	Homograft Studies	95
	1. ACTH and Cortisone	<b>9</b> 5
	2. Lyophilized Skin	96
	3. Foreskin	97
1 <b>9</b> 54 II	Homograft Studies	16
1955	Report of Case with Frozen Homotransplants	73
1955	Experiments on the Acquired Tolerance Phenomen of Skin Homografts in Mice	82
1956	Homograft Studies	171
	1. Experimental Study	171
	<ol> <li>Clinical Study: Follow-Up Report of Patient with 85% Burns</li> </ol>	176
<u>1957</u>	The Effects of Antibiotics on the Organisms Colon- izing Burn Wounds and on the Success of Skin Grafting	52
<u>1957</u>	A Study of Clinical Criteria for Success of Skin Grafting	69

YEAR		PAGE
1957	Reasons for Failure of Take on Skin Grafting of Burned Areas	73
1957	The Relationship Between Granulation Tissue, Bacteria, and Skin Grafts on Burned Patients	85
1957	An Evaluation on Non-viable Skin Homografts	131
1958	The Use of Keratin Film as a Synthetic Homograft Substitute	2 <b>9</b> 6
1958	Preparation of a Vinyl Plastic Membrane for Trial as a Synthetic Homograft	315
1958	A Method for Obtaining and Grafting Finely Divided Autologous Skin	317
1959	Studies on the Survival of Skin Homografts	23
1959	The Local Leukocytic Response to Skin Grafting	210
1960	Study of the Relationship Between Area and Persistence of Homografts in Rats	264
<u>1961</u>	Observations on the Validity of Surface Area Calculations of Rats in the Laboratory	65
1961	Influence of Thermal Trauma <u>Per Se</u> on Homograft Survival. An Experimental Study	80
1961	Homograft Studies in the Rat with Specific Reference to Size of Transplants in Relation to Survival Time	102

## LYMPHATIC STUDIES

YEAR		PAGE
1953	Study of the Disappearance of Radioactive Sodium from the Skin of the Lower Extremities	28
<u>1954 I</u>	Study of the Disappearance of Radioactive Sodium from the Skin of the Lower Extremities: Progress Report	21
1958	Hydrodynamics of the Lower Extremity Lymphatics Following Trauma	264
1958	Cannulation of the Lymphatics of the Lower Extremity	283
1959	Studies of Ulceration and Edema of the Lower Extremity by Lymphatic Cannulation	2
1959	Photograph of Lymphatic Exhibit	42
1959	Cannulation of the Lymphatics of the Lower Extremity	303
1960	Lymphodynamics	269
1960	Experimental Perfusion of the Lymphatics	294
1960	Experimental Study of the Effects of Burns on the Characteristics of Lymph Fluid	296

# RADIOISOTOPE AND NUCLEAR CYTOLOGY

# I. RADIOACTIVE ISOTOPE STUDIES

YEAR		<u>PAGE</u>
1950-53	Radioactive Isotope Studies	98
<u>1953</u>	Study of the Disappearance of Radioactive Sodium from the Skin of the Lower Extremities	28
<u>1954 I</u>	Study of the Disappearance of Radioactive Sodium from the Skin of the Lower Extremities	21
	II. NUCLEAR CYTOLOGY STUDIES	
YEAR		PAGE
1950-53	Studies in Nuclear Cytology	19

# REPORTS ON MEDICAL TRIPS AND MEETINGS

YEAR		PAGE
<b>19</b> 55	Report on First International Congress of Plastic Surgery	142
1959	Notes on Visit to the U.S.S.R., June 27 - July 10, 1959, to Observe Surgical Techniques and Research	271
1960	Report of International Symposium in Plastic Surgery Marianske Lazne, June 28-30, 1960, and Tour of Various European Burn Centers	1

#### TISSUE CULTURE STUDIES

YEAR		PAGE
1950-53	Tissue Culture Studies as Related to Burns and Wound Healing	1
1950-53	Effects of Extracts of Burned Skin on Tissue Culture Epithelial Outgrowth	11

## TRAUMA STUDIES

YEAR		PAGE
<u>1955</u>	Mass Disaster Treatment of Burns	112
<u>1955</u>	Physiology and Treatment of Shock (Reprint)	126
<u>1955</u>	Acute Injuries of the Face	127
1957	Follow-Up on Medical Survey of the Mexas City Disaster	215
<u>1958</u>	Follow-Up on Medical Survey of the Texas City Disaster	149
1961	Trauma - A Neglected Specialty?	1
1961	The Unreliability of T.A.T. Skin Tests After Trauma	10
1961	Distal Extremity Necrosis Following Snake Bite	16

## WOUND HEALING STUDIES

YEAR		PAGE
<u>1950-53</u>	Optimum Conditions for Growth of Epithelium; Wound Healing Agents	4
	<ol> <li>The Effects of Ascitic Fluid and of Blood Serum on the Outgrowth of Epidermal Cells from the Human Skin in Tissue Culture</li> </ol>	4
	<ol> <li>Free Amino-Acids in Malignant and Non-Malig- nant Ascitic and Pleural Fluids</li> </ol>	5
	<ol> <li>The Influence of Normal Serum: Its Derivatives, and of "Wound Healing Agents" on Human Epidermis <u>In Vitro</u></li> </ol>	6
<u>1953</u>	Cellular Differentiation in Tissue Culture: Undifferentiated and Differentiated Elements of the Triturus Viridescens Blastema in Tissue Culture: A Preliminary Study with Amphibian Tissue	30
<u>1954 I</u>	Cellular Differentiation in Tissue Culture: Undifferentiated and Differentiated Elements of the Triturus Viridescens Blastema in Tissue Culture: A Preliminary Study with Amphibian Tissue	59
<u>1955</u>	Comparative Histochemical Observations on Wound Healing in Adult Rats and Cultured Adult Human Epithelium (Reprint)	141
	1. Method and Glycogen Distribution	
	2. Ribonucleic Acid and Thymonucleic Acid	
	3. Alkaline and Acid Phosphatase	
1956	Histochemical Studies of the Dermis During the Process of Wound Healing Following Thermal Trauma	108
<u> 1956</u>	Keloid and Hypertrophic Scars: A Clinical Review	116

<u>YEAR</u>		PAGE
1956	Experimental Keloid Formation: A Preliminary Report	136
<u>1957</u>	Wound Healing as a Problem in Growth	142
<u>1958</u>	Colostomy Junctions as Related to the Problem of Wound Healing	97
<u>1958</u>	Microbiological and Histological Studies in Wound Healing	115
1960	Leukocytic Patterns in Granulating Burns	143